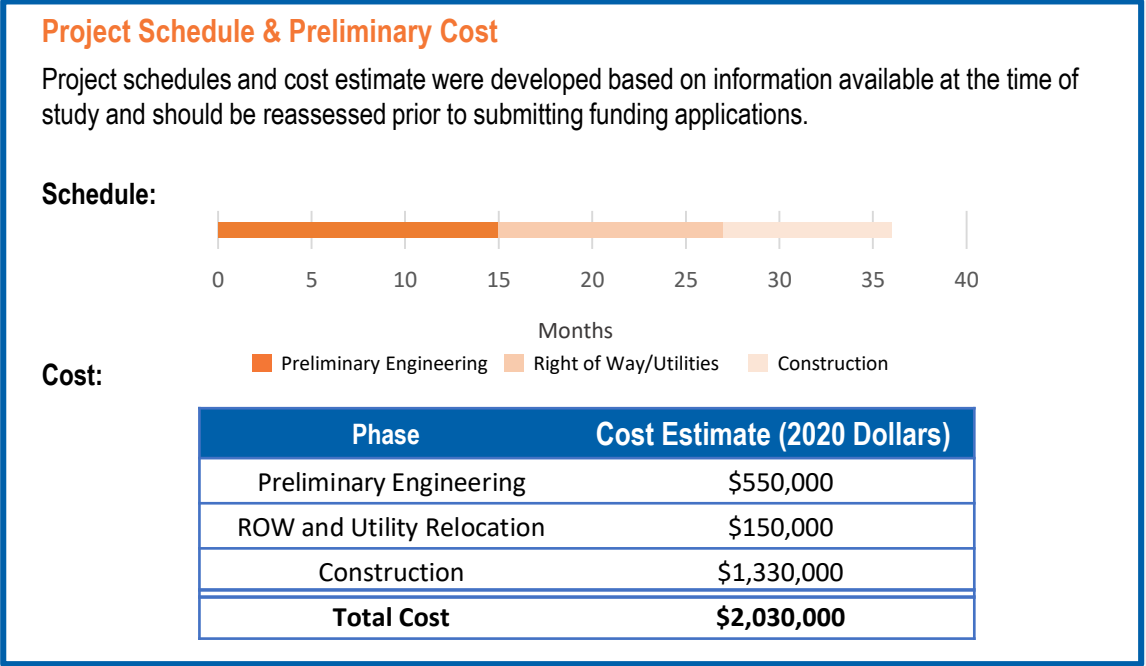
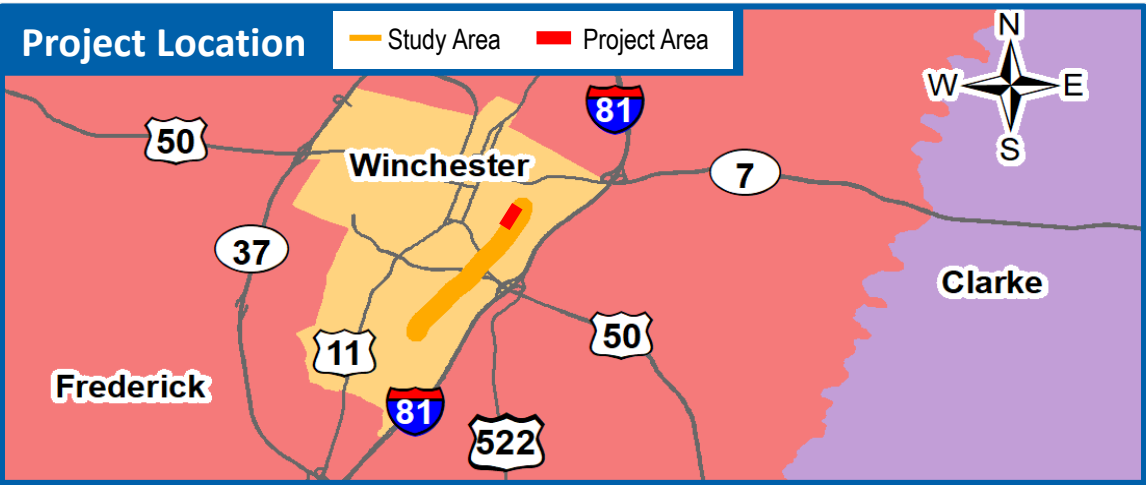
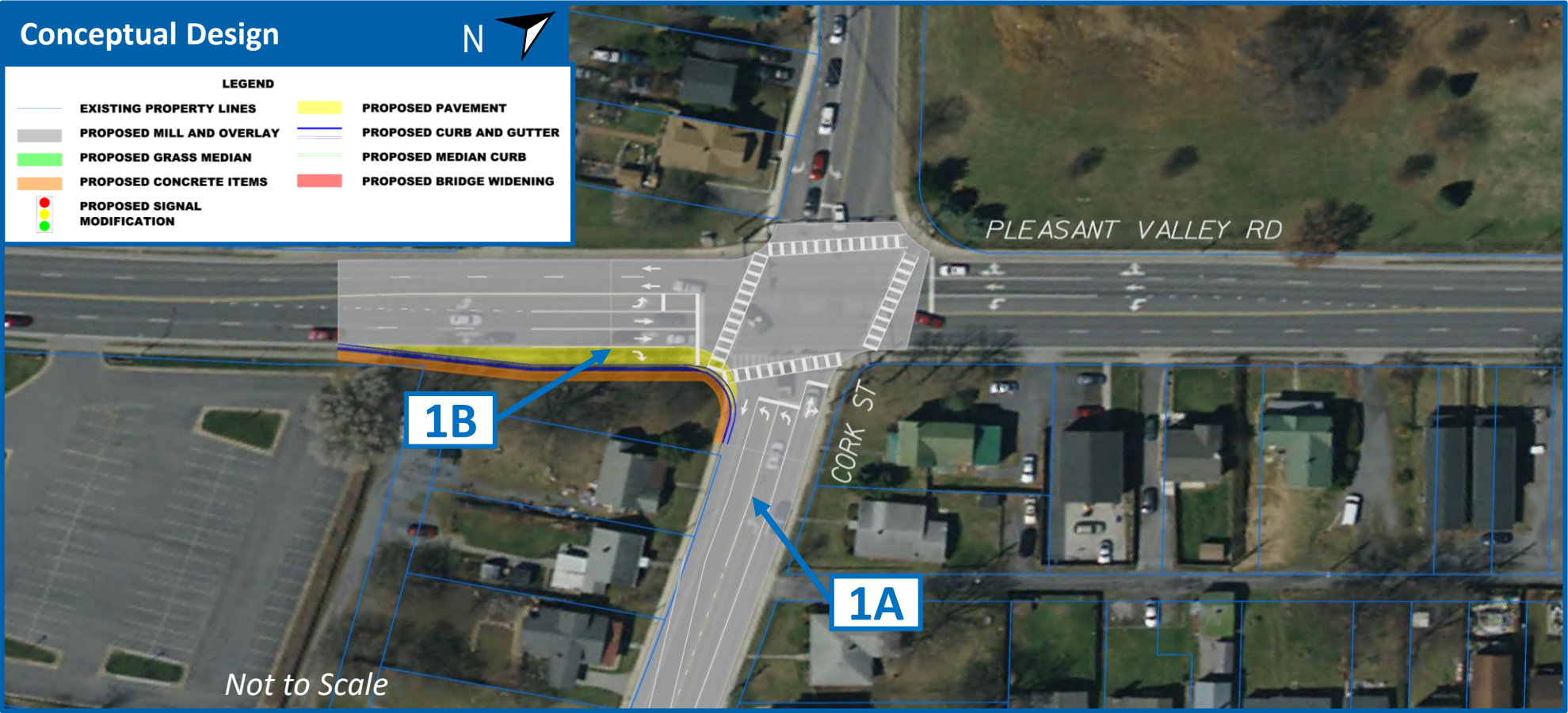


Improvement #1: Cork Street and Pleasant Valley Road

(1A) Add Second Westbound Left-Turn Lane; (1B) Add Northbound Right-Turn Lane



Operations and Safety Improvements

The following recommendations are projected to improve operations and/or safety along Pleasant Valley Road.

Cork Street and Pleasant Valley Road

- Improvement 1A:** Add Second Westbound Left-Turn Lane
 - ✓ Improves intersection from LOS E to LOS D
 - ✓ Reduces westbound left queue lengths on Cork Street by 59%
 - ✓ Reallocates green time to north and southbound movements
 - ✓ Safety benefit of protected-only left turn movement
 - ✓ Five-year EPDO crashes reduced by 10
- Improvement 1B:** Add Northbound Right-Turn Lane
 - ✓ Reduces northbound delay and queuing
 - ✓ Improves intersection from LOS E to LOS D
 - ✓ Five-year EPDO crashes reduced by 7

Traffic Operations Results

Improvement 1A: Cork Street

Improvement 1B: Cork Street

95th Percentile Queue Length

The following reductions in 95th percentile queue length from No-Build to Build conditions target the areas of biggest need throughout the corridor:

Movement or Approach	No-Build Queue (ft)	Build Queue (ft)	% Reduction
Improvement 1A:			
Cork Street- WBL	#503	#206	59%
Pleasant Valley Road- NBT	#962	695	27%
Pleasant Valley Road- SBT	516	396	23%
Improvement 1B:			
Pleasant Valley Road - NBTR	#962	517	46%

95th percentile volume exceeds capacity, queue may be longer

Safety Results

Crash modification factors (CMFs) were chosen to project the reduction in all severity crashes weighted to equivalent property damage only (EPDO) crashes.

Improvement	2014-2019* EPDO	CMF	EPDO Reduction
Improvement 1A	323	Add turn lane to existing (0.97)	10
Improvement 1B	170	Change # of approaches with right turn lanes (0.96)	7

* 2019 VDOT crash data was available through July 30, 2019